



California's Health

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DEDICATION MARKS 85th ANNIVERSARY OF DEPARTMENT

PUBLIC HEALTH PROGRESS SINCE 1870

In April of 1870, 85 years ago, the Legislature of the young State of California took a great forward step. It established a State Board of Health. Massachusetts, one of the oldest states, had been the first to create a state public health agency. California followed only six months later.

The 85 years since then have seen amazing advances in science, in industry, in population growth—all with direct implications for the health of Californians.

For all of these 85 years the State Department of Public Health has been actively working for the prevention of disease and the protection of the health of the people. Probably no other state agency has touched the lives of the people so closely.

On April 15, 1955, the State Department of Public Health observed the 85th anniversary of its founding. Two weeks before, the department moved into its new headquarters building at 2151 Berkeley Way, Berkeley. Dedication ceremonies were held on April 28th. This review of public health progress in California since 1870 was prepared for this occasion.

Public Health Beginnings

The first decade after the founding of the State Board of Health gave California the beginnings of organized public health activities on the

state and local level, some basic legislation for the purpose, and a start in the teaching of preventive medicine and public health in the medical schools of the State.

It should be remembered that there was little scientific knowledge at that time of the control of communicable disease. The "germ theory" was still only a theory and the "miasmatic theory" of disease held sway.

In the next two decades the field of bacteriology was opened up by scientific research then centered in Europe. Epochal discoveries were made which would later make possible great advances in control of communicable disease.

Communicable Disease

California's early public health problems were tuberculosis, malaria, typhoid fever, diphtheria and smallpox. Later plague, venereal disease, and poliomyelitis became serious problems.

With the advances in scientific knowledge about these diseases and the application of this knowledge by medical and public health agencies, most of these diseases have been conquered. The steps in the vanquishing of these killers make a fascinating chronicle of man's achievement.

The need for control of the communicable diseases was the basis for most of the earlier developments in public health in California, as well as in other states. The administrative pattern of the State Department of Public Health in the earlier part of its history was set by this need. As these were brought under control, one



by one, the pattern and emphasis began to change.

None of these diseases are the menaces that they once were, but continuance of the control measures that conquered them is always necessary. Public health workers can never relax vigilance, for "conquered" diseases are never actually wiped off the face of the earth. They could all rise again if public health control were to be stopped.

Chronic Disease

Thousands upon thousands of lives have been saved by the virtual defeat of the major communicable diseases, but this has meant that more people have lived to the ages when the chronic diseases are more frequent. The signal success in communicable disease control has thrown the chronic disease problem into relief.

This trend became evident late in the Twenties when cancer deaths exceeded tuberculosis deaths for the first time in California's history. Now heart disease is the number one killer. By 1952 the three major chronic diseases, heart disease, cancer and diabetes, caused 70 percent of the deaths in California.

Accidents

Accidents now rank next to chronic disease as a cause of death in California. They are the leading killer of Californians between the ages of one and 35. They are responsible for more deaths than all the communicable diseases combined. Home accidents have become the leading cause of death in California children from one to four years of age.

Mental Illness

Mental illness is now considered by many authorities to be the number one public health problem in California, as in the rest of the country. The prevention of mental illness is still in a rudimentary stage of development. When effective preventive measures are worked out on the basis of scientific research this serious public health problem can be intelligently attacked. Encouraging starts are being made in this direction.

Population Growth

All public health problems of California have been intensified by the State's startling growth in the 85

years since the State Health Department was founded. The migration to California started with the Gold Rush and with each crisis in history more people have come to the Golden State. World War I, the Depression, the "dust bowl" migration, World War II—all brought more people to California. And most of them stayed, or came back, and produced many, many native sons and daughters. The birth rate, which had gone down steadily for a number of years, took an unexpected upswing during World War II, and it has stayed up.

Now there are 11½ million more people in California than there were in 1870, when the State started public health activities on the state level. We have a million people 65 years old or older; and we have 3½ million children and young people under 20 years of age.

Infant Mortality

In spite of the difficulties of the Depression, the war years and the greatly increased birth rate, infant mortality rates have declined steadily in California. Since 1930 the decline has been phenomenal. This is pointed up by the realization that if the infant mortality rate of 1930 had prevailed in 1953, there would have been more than 17,000 deaths of infants under one year of age instead of about 7,000—10,000 lives saved in one year!

But the problem of infant mortality is still serious in the rural parts of the State. The infant death rate in those areas is 20 percent greater than in the urban areas.

General Health Conditions

Infant mortality rates are considered by public health authorities to serve as a sensitive and reliable index of the quality of public health conditions in general, so that the present low rate in California can be taken as an indication of the great progress that has been made by the combined efforts of the local and state health departments and their supporters.

This has come about through increasing understanding by Californians of the possibilities of disease prevention and of the value of public health efforts in safeguarding their health. With increased understanding has come increased support. More

liberal financial support and constructive legislation have been the logical result.

Local Health Services

From the very beginning it has been the policy of the State Department of Public Health to stimulate the development of full-time local health departments throughout the State, for it has always been clear that the local public health services are the solid core of all public health work.

Now there are 46 full-time county health departments in California, and only 1.3 percent of the State's population is without full-time public health services.

But this has come about slowly. When the department was founded in 1870 there were only three city boards of health, none of them full-time. There was no full-time county health department until Los Angeles County established one in 1915, and by 1930 there were only 12.

Federal Social Security funds made available in 1936 for the extension of public health services gave strong impetus to their development, so that by 1940 there were 20 full-time county and 11 full-time city health departments in California.

The State Public Health Assistance Act of 1947 gave even stronger impetus to the extension and improvement of local public health services. Under this act the State Department of Public Health makes allocation of funds to local health departments meeting the standards set up for services and personnel. These funds augment, but do not replace, local appropriations for this purpose.

Only 12 rural counties of Northern California now remain without full-time public health services. Two of these counties, Trinity and Sierra, have contracted with the State Department of Public Health Services starting July 1. The problem of providing organized services in other sparsely populated areas still remains to be solved. The problem is heightened by the fact that these scenic parts of the State are our most popular recreational areas.

Sanitation

The earliest emphasis in public health work in California was on sanitation, and with the great in-

crease in population it still is one of the most important. Supplying pure water to the people, providing adequate disposal of domestic and industrial waste, and making water supplies of recreational areas safe—all are immense and continuing problems.

With the tremendous population and industrial growth has also come a new major problem in sanitation of the environment—air pollution. Until recent years air pollution had been minor and localized; now the "smog" covers whole metropolitan areas and presents challenging problems.

Industrial Health

The increase in industry has also brought the need for preventing occupational hazards to health. The industrial growth of California had been remarkable even by the Mid-Thirties, when there were about two and a half million employed persons in the State. By 1953 this number had swelled to more than 4,000,000, and many more occupations had been added to the list of those potentially dangerous to the health of the workers. New in the last decade are many dangerous chemicals, pesticides, plastics, toxic solvents and fuels. Ionizing radiation is the newest addition to the list of industrial hazards, and physical hazards of temperature, pressure and vibration have greatly increased.

Hospital Construction

The tremendous increase in population meant that the shortage of hospitals became acute. Since 1947 state funds have been appropriated to match available federal funds for hospital construction. Rapid expansion of hospitals especially in areas of greatest need, has followed, but the pressure of population has perpetuated the serious shortage.

Hospitals, diagnostic and treatment centers for the chronically ill are an especially serious need, and one which can be expected to grow more pressing. Rehabilitation centers and nursing homes for victims of chronic disease are needed also.

Morbidity Data Needed

For the chronic diseases particularly, and for many other diseases not reportable, there exist no adequate statistics on incidence, prevalence or disability.



With the occupation of this beautiful building, we public health workers dedicate ourselves anew to the service of the people of California.

—MALCOLM H. MERRILL, M.D., M.P.H., State Director of Public Health

With this issue of California's Health we are celebrating two important events in the history of public health in California. These events are the 85th anniversary of the founding of the California State Board of Health and the dedication of our new public health building.

The people of our State have provided us with a modern plant in a beautiful setting adjacent to a world renowned center of learning. Such modern facilities will contribute significantly to the effectiveness of our endeavors in the prevention of disease.

In 1950 the State Department of Public Health began to study methods of measuring the volume and distribution of illness in the general population. After decision on method, a state-wide survey of California's health was begun in May of 1954 and will continue until May of 1955.

This is a pioneer effort, the first state-wide survey of illness and disability to be undertaken in the United States. It is being financed by a grant from the U. S. Public Health Service. Much valuable information is expected to be made available for the planning of programs by health and welfare agencies.

The Future

The staff of the California State Department of Public Health can take great pride in the department's share in public health achievement over the last 85 years, but they know they cannot relax their efforts.

Many serious public health problems still face Californians. Some may be here that are not yet recognized; others are bound to develop in the future.

The responsibility for the solution of California's public health problems does not lie with public health workers alone, but with the people. The public health workers apply the discoveries of scientists to the prevention of disease, disability and un-

timely death, but only as fast and efficiently as the people are ready to accept. Education must be a basic part of public health work, as it has always been.

MARGUERITE S. AUGUSTINE, Health Education Consultant, Bureau of Health Education

Department Compiles Water Quality Data For Special Water Resources Board

The State Division of Water Resources, at the request of a special board of consultants, is collecting information on water quality as related to the California Water Plan. They have asked the Department's Bureau of Sanitary Engineering to assist them by furnishing data on the quality of raw water available to the larger communities of Central and Southern California. These are the communities that are in the service area of the California Water Plan.

The data being furnished by the Bureau of Sanitary Engineering has been gathered as part of a routine program of keeping records on the nature of the water system and quality of water of over 700 large community water supplies in the State. Assembly of the data for the places on the Division of Water Resources' list is being expedited to meet the time schedule requested by the board of consultants.

SOME ASPECTS OF STUDIES OF DIARRHEAL DISEASES IN CALIFORNIA

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As general mortality and mortality from specific infectious diseases have declined in recent years, certain disease complexes have become more apparent as producers of morbidity, either of the short-term but frequently repeated variety or of the long-term "continuously ill" variety. One may rightly question if these should not all be called chronic diseases, whether communicable or not, since the total effect on populations at high risk is to produce a repetitive illness, with varying amounts of measurable disability.

The two major disease complexes of this character which have been labeled "communicable" are the acute respiratory diseases and the acute gastro-intestinal diseases. However, not all of either of these complexes should be actually regarded as communicable under present definitions, e.g., the well-known effect of anxiety alone on gastrointestinal motility will occasionally produce a quite respectable "acute diarrheal disease." Similar examples can be found in the acute respiratory disease complex. In any event, these diseases are producing large amounts of illness among Californians, as currently shown in data compiled by the Morbidity Research Project. A major research effort is being made on the acute respiratory diseases. The diarrheal diseases, on the other hand, are regarded as being somewhat "out of fashion" research-wise. Many scientists and administrators appear to have the attitude best expressed by "What! Are they still around?" The answer for California is emphatically "Yes!"

In 1949 and early 1950, serious diarrheal disease with high infant mortality was brought to California's attention in the migratory labor of the San Joaquin Valley.

A special committee was appointed by the Governor to examine this and other problems among agricultural labor in the San Joaquin Valley. The committee's findings and recommendations were reported in March 1951.¹ In a report of November 30, 1949, by Anita A. Faverman, M.D., then Chief

of the Department's Bureau of Maternal and Child Health, to Wilton L. Halverson, M.D., then State Director of Public Health, following a survey by the department in selected counties of the San Joaquin Valley,² Dr. Faverman observed:

"The problem of infant mortality and diarrheal deaths in this area is not a new one. In 1948, 148 infants died of diarrhea and enteritis in the six San Joaquin Valley cotton counties (Fresno, Kings, Kern, Merced, Madera and Tulare).

"The San Joaquin Valley counties have consistently shown a higher infant mortality rate from diarrhea and enteritis than the State as a whole. It is true that these rates have fallen over a period of years, yet the 1948 data for the San Joaquin Valley area (includes San Joaquin and Stanislaus Counties as well as the six counties listed) showed the infant mortality rate from diarrhea and enteritis, 5.5, was three times the rate for the State as a whole, 1.8.

"Moreover, the percentage of infant deaths from this cause is at least twice as high in this area as compared with the State as a whole. During the four-year period 1945-1948, 6.6 percent of infant deaths were attributed to diarrhea and enteritis in the State, while 14.5 percent were attributed to this cause in six San Joaquin Valley counties (Fresno, Kern, Kings, Merced, Madera and Tulare). During this period, 27 percent of the State's infant deaths due to diarrhea and enteritis occurred in these six counties. In 1948, 9.3 percent of the State's births occurred in these counties.

"Pneumonia accounted for 10.7 percent of infant deaths in the State during 1945-1948 and for 12.5 percent of the infant deaths which occurred in these six counties.

"Although diarrhea and enteritis is not as prominent as a cause of mortality in the 1-4 age group as in the first year of life, during 1945-1948 6 percent of deaths in the 1-4 age group were attributed to diarrhea and enteritis in these six San Joaquin Valley counties as compared to 3.2 percent for the State as a whole. Moreover, 25 percent of the State's diarrhea and enteritis deaths in this age group occurred in these six counties."

However, very little was known about the etiological agents involved. A prospectus for study of the diarrheal diseases was then drawn up along the following lines:

I. Problem

In California, the diarrheal disease problem is extremely complex. Included are the following population groups:

A. Migrant labor camp population groups

The disease occurs all year in this group with a high infant mortality.

Very little is known of the etiologic agents involved.

B. Mountain resort area tourist groups
The disease occurs both during the winter and summer months. The etiologic agents are unknown. Morbidity and mortality information are lacking.

C. Urban population groups
Outbreaks of epidemic nausea, vomiting, and diarrhea occur. The etiologic agents are unknown. Information comes to the health department by hearsay, newspaper reports, etc. Information in rural areas is unknown.

D. New-born infant population group
The disease occurs usually in hospitals and has a high mortality rate. Cases occur all year but there is a tendency for an increase in the fall and winter months. (Some virus studies have been done by the California State Viral and Rickettsial Disease Laboratory.) The etiologic agents remain unknown.

E. Institutional population groups
The disease occurs all year with a tendency to an increase in the summer months. *Shigella*, *salmonella* (including typhoid), and *amoeba* have been found as etiologic agents in this category.

F. General
Morbidity reports on scattered cases diagnosed as shigellosis, salmonellosis exclusive of typhoid fever, and amoebiasis are received each week. These cases may fall into any of the above groups. Neither local nor State Health Department epidemiologic follow-up is common.

The officially recorded morbidity and mortality reports for 1948 and 1949 do not begin to show the extent of the problem; therefore, to give a more accurate picture the following information obtained through field investigations by the Bureau of Maternal and Child Health is included. Only Central Valley counties have been investigated.

II. Plan:

Epidemiological information should be sought through the following modes of study:

A. Clinical study

A detailed clinical study of cases occurring currently in the various groups to determine what the clinical syndrome is and if the cases fit a single pattern or group themselves into several patterns according to etiology, geographic location, season, etc.

| County | County Hospitals | |
|-------------|---------------------|---|
| | 1948 | 1949 |
| Merced | No information | 132 cases—9 deaths |
| Fresno | 449 cases—28 deaths | 407 cases—38 deaths (41 cases studied—6 positive for shigella) |
| Kings | 89 cases—5 deaths | 75 cases admitted per month—18 deaths (January—December) |
| Stanislaus | No information | 49 cases—2 deaths (May-August) |
| San Joaquin | 154 cases—10 deaths | *44 cases—2 deaths (20 positive for shigella) |
| Kern | 500 cases—22 deaths | * |
| Tulare | 109 cases—11 deaths | 96 cases—9 deaths (January-October) |

* Total cases unknown.

INFANT DEATHS

CALIFORNIA AND SIX* SELECTED SAN JOAQUIN VALLEY COUNTIES
(1945-1948)

| | 1945 | 1946 | 1947 | 1948 | Total (4-year period) | |
|------------------------|-------|-------|-------|-------|-----------------------|---------|
| | | | | | Number | Percent |
| TOTAL | | | | | | |
| California | 5,978 | 6,878 | 7,207 | 6,861 | 26,324 | 100 |
| Diarrhea and enteritis | 427 | 391 | 499 | 414 | 1,731 | 6.6 |
| Pneumonia | 738 | 723 | 693 | 677 | 2,831 | 10.7 |
| SIX COUNTIES | | | | | | |
| (all causes) | 650 | 743 | 937 | 932 | 3,262 | 100 |
| Diarrhea | 92 | 99 | 137 | 145 | 473 | 14.5 |
| Pneumonia | 113 | 98 | 86 | 112 | 409 | 12.5 |

* Includes Fresno, Kern, Kings, Tulare, Merced and Madera Counties.

B. Epidemiologic and statistical study

A detailed study of the groups represented to determine:

- (1) Incidence, prevalence, morbidity, and mortality;
- (2) Seasonal distribution;
- (3) Geographic distribution within the selected area;
- (4) Age, sex, and race distribution;
- (5) Multiple cases;
 - (a) Household (family);
 - (b) Institution;
 - (c) Labor camp.

C. Environmental studies on the role of the following in the total epidemiology of the diarrheal diseases.

1. Food
2. Water
3. Milk
4. Insects
5. Pollens
6. Sewage disposal
7. Socio-economic status
8. Nutrition

D. Laboratory studies

The detailed laboratory studies should include bacteriological, parasitological, viral and serological work on the following groups:

- (1) Surveys:
 - (a) Households;
 - (1) Family;
 - (2) Migratory camp groups;
 - (b) Food handlers;
 - (c) General population groups.
- (2) Current cases:
 - (a) Frank;
 - (b) Secondary;
 - (c) Inapparent.

III. Project recommendations

- A. It was recommended that Dr. James Watt of the United States Public Health Service should be invited as soon as possible to assist in the planning of a project because of his wide experience in conducting field studies on the diarrheal diseases.

- B. Priority should be given to etiologic studies on the population groups outlined above and the findings correlated for the various groups.

- C. The area for initial investigation should be limited to one of the Central Valley counties, because of the immediate problem of high infant death rates in the migratory labor camp groups. For many reasons Fresno County would seem to be a logical base.

- D. Laboratory studies should be done on the spot as far as possible—at least the screening tests for pathogenic bacteria and parasites. Duplicate material should be frozen in dry ice for future viral and chemical studies. A study of viral agents might include the Coxsackie virus.

- E. Field station facilities should be included in any project planning. The possibility of utilizing temporary quarters such as quonset huts should be given consideration.

- F. Any study undertaken should cover at least one calendar year so that all seasons, and migratory labor and crop cycles are complete.

Shortly thereafter, a specific series of studies were initiated jointly with the Fresno County Health Department, the State Department of Public Health and the U. S. Public Health Service, led by Dr. James Watt. First, special efforts were made in several valley county hospitals to obtain better than average laboratory workups on children admitted with diarrheal diseases. These efforts succeeded in demonstrating the presence of shigella

organisms in a large number of the patients in spite of failure to do so in the past. More specific therapeutics reduced mortality, but not morbidity. Since this was a biased group, it was next decided to determine the relative role of Shigella-produced diarrhea in segments of the general population. It is our conviction that about two-thirds of the diarrheal disease which was producing serious illness occurring in that area at that time was due to Shigella infections.³

When we were convinced of the major etiologic agent involved in the migratory labor camp group, it was then decided to examine the various modes of transmission for relative importance, and it was found that person-to-person spread was probably more important than other modes in this situation. It followed naturally that an examination of the factors in this person-to-person spread should be made in order to determine the critical ones for more effective control.

Survey Methods

The survey methods used in 1952-53 were essentially the same as in 1950.^{4, 5, 6, 7, 8} At the initial visit, sanitary facilities were recorded, and at every visit and in each camp, a complete census was taken. Rectal swabs for the isolation of Shigella and Salmonella organisms were obtained from all available children, 10 years of age and under, usually one-half to two-thirds of all the children in these camps.

There are more than 350 labor camps maintained in the irrigated areas of Fresno County's west side. From these camps, 70 were selected for study, primarily on the basis of size. One hundred fifty-seven visits were made to the camps. The interval between visits in a given camp was at least one month.

Collection of data began in October, 1952, and continued for seven months through April, 1953. During this period, 6,111 cultures were processed and 4.8 percent (296) found positive for Shigella organisms. Both individuals and families were utilized as the basis for analysis.

Analysis⁹

Persons and families cultured were classified by the location of water faucets in the camp of residence. The

percentage of positive cultures encountered varied widely: low in camps in which all cabins were equipped with private or inside water faucets, high in camps in which no cabins had inside faucets. Camps where only a portion of the cabins had inside supplies fell between the two extremes. In such mixed facility camps, the "inside plumbing" portion experienced lower positivity rates than the "outside plumbing" portion. The significance of these associations were analyzed with consideration given to additional environmental and other factors related to the epidemiology of *Shigella* infections.

A study was made in 26 "matched" camps selected on the basis of two types of plumbing. In these "sub-camps," one type of cabin was equipped with inside water faucets only; the other type of cabin had no inside plumbing. Both types had communal shower and toilet facilities. Housing, flies, garbage and other environmental factors were comparable. Each season was equally represented for both types. In this sense, the seasonal effect can be considered controlled. Similarly, persons per shower and persons per toilet and other communal environmental factors were matched. This represents proportionate sampling between the two sub-camp types according to the extraneous sources of variation.

One and two-tenths percent (1.2%) of the cultures taken in households with inside water faucets were positive for *Shigella*, whereas five times as many (5.9%) of the cultures taken in households with outside water faucets were positive for *Shigella*. Where an "average prevalence rate" (obtained by averaging 58 rates for each subcamp type) is calculated, the comparison is even more significant, and the probability of as large a difference occurring by chance is less than once in 1,000.

Discussion

In Epidemiological studies, water has been considered as a vehicle for the transmission of certain pathogens to man. Watt first clearly expressed the idea that water, even though it might be "below standard," could act as a diluent and assist in the reduction of intestinal infections when used for personal hygiene purposes.⁹

Data from the 1950 Fresno County, California, diarrheal disease studies in migratory farm labor and "fringe" area groups crudely implied that the amount of water available for personal hygiene may have influenced the prevalence rates for the specific pathogen, *Shigella*.^{4,5} This concept was then examined by Stewart, McCabe, Hemphill, and De Capito¹⁰ in a fixed rural and semi-rural population in southern Georgia. They also found that infection rates were highest where water was least available for personal hygiene. Concurrently, with the work in Georgia, the study just described was carried out in Fresno County, California, to define more clearly the suggested effect of water availability on the prevalence of *Shigella* infections in migratory labor camp populations.

Summary

(1) A study of shigellosis in migratory labor camps in Fresno in 1950 suggested that water as a diluent might reduce the prevalence of shigellosis.

(2) The present study has shown that *Shigella* prevalence was associated with availability of water for personal hygiene. Other measured environmental variables did not account for the differences seen.

(3) This observation has been independently confirmed by similar findings in a fixed rural and semi-rural population in southern Georgia.

(4) The finding implies that control of *Shigella* infections may be significantly improved through a single practical modification of the environment—provision of easily accessible water for personal hygiene.

(5) Proof of causative association requires critical, quantitative determination of the effect, if any, of a known increase in water availability for personal hygiene upon a suitable population's experience with *Shigella* organisms.

(6) It is suggested that workers in the environmental sanitation field might well accept this challenge since the potential knowledge to be gained could have wide application in many places around the world.

Comment

We hope that the necessary moneys can be found to push this work along. In the meantime, what other areas of

those set forth in the prospectus are being looked into? Briefly, we would mention four:

First, viral agents as related to the various population groups. The rapid development of the new laboratory tool of the tissue culture in the State Department of Public Health's Viral and Rickettsial Laboratory will soon be brought into specific focus on this problem through a research grant from the National Institutes of Health already approved.

Second, the relation of nutrition to diarrheal diseases. A research grant is being sought by the State Department of Public Health, Nutrition Service, to specifically explore this relationship, along with other illness, through affiliation with the Morbidity Research Project mentioned earlier.

Third, problems of diarrheal disease in institutions. Over the past several years, the State Departments of Public Health and Mental Hygiene have been engaging more and more closely in cooperative examination of the problems in each institution, in institutes and seminars for the training of institutional personnel, in contractual services for improved environmental sanitation in institutions and there is now the possibility that some type of joint epidemiologic service may soon evolve.

Lastly, extension of the Fresno approach to other areas. A project is just beginning jointly with the Imperial County Health Department to examine into diarrheal disease etiology in that area.

What of the future? Until this major "cause" of loss of life, time, or temper is much more fully understood (in the epidemiological sense), we hope to continue to press our investigations vigorously into more and more of the complex aspects of diarrheal disease.

References

- (1) COKE, J. EARL and PRASOW, PAUL. Agricultural Labor in the San Joaquin Valley, Final Report and Recommendations by the Governor's Committee to Survey the Agricultural Labor Resources of the San Joaquin Valley. Sacramento, California, March 15, 1951.
- (2) FAVERMAN, ANITA E., M.D. Report to Wilton L. Halverson, M.D., unpublished.
- (3) WATT, JAMES, M.D., et al., Diarrheal Diseases in Fresno County, Calif., *Am. J. Pub. Health*, 43, 728-741, June, 1953.

- (4) Report of Study of Diarrheal Disease in Fresno County, July-December, 1950. By Special Study Group, transmitted by James Watt, M.D., to the Director of Public Health, State of California, November, 1951. Unpublished.
- (5) WATT, JAMES, HOLLISTER, A. C., JR., BECK, M.D., and HEMPHILL, E. C. Diarrheal Diseases in Fresno County, California Am. Jour. of Public Health, 43: 728-41, June, 1953.
- (6) STEIN, WM., BECK, M.D., HOLLISTER, A. C., JR., and MORTENSON, EARL. The Organization and Operation of A Study of Diarrheal Disease in Fresno County. Calif. Med., 75: 94-7 August, 1951.
- (7) Report of Study of Diarrheal Disease in Fresno County, October, 1952 to July, 1953 by Special Study Group. Unpublished.
- (8) HOLLISTER, A. C., JR., M.D., et al., The Influence of Water Availability on Shigella Prevalence in Migratory Farm Labor, Am. J. of Pub. Health, 45, 354-362, March, 1955.
- (9) WATT, JAMES. In Rosenau Preventive Medicine and Hygiene, 7th Edition, 1951, Edited by Kenneth F. Maxcy, M.D., Dr. P. H., pp. 225; Appleton-Century-Crofts, Inc., New York.
- (10) STEWART, WILLIAM H., MCCABE, LELAND J., JR., HEMPHILL, E. C., and DE CAPITO, THELMA. The Influence of the Environment on the Prevalence of Shigella Infection. Submitted for publication.

Polio Vaccination Program Swings Into Action Following Announcement of Effectiveness

All local health departments in California are cooperating in the program of the National Foundation for Infantile Paralysis for vaccination of all children in first and second primary grades in public, private and parochial schools to be completed in the Spring of 1955.

While sufficient vaccine to provide the first inoculation for 90 percent of the first and second grade population in Southern California was delivered April 15th, there will be a delay of up to one month in the distribution of vaccine to local health departments in Northern California.

Local health officers have been advised by the State Department of Public Health to cancel any specific inoculation dates until information is available on supply.

The delay in delivery is due to a shortage in production and the fact that vaccine material still is being tested for approval by the National

Institutes of Health for release. Despite the delay it is felt there still is ample time to complete the two-dose inoculation in Northern California because the disease does not peak until early fall. It also is estimated that if delivery is made by the week of May 16th there still will be time to complete the two injections before school is dismissed for the summer.

The total number of eligible children in first and second grades in California is 552,686. In addition, children who participated in the 1954 field trial in Alameda County, but served as a control group and did not receive this vaccine, will be eligible. As well, the children who received vaccine in the field trials will be eligible for a booster shot. The shipment of vaccine to Southern California was comprised of 30,610 9cc vials and provided a first shot for 275,490 first and second graders in the following local health jurisdictions: The Counties of Los Angeles, San Diego, Imperial, Orange, Riverside, San Bernardino, Santa Barbara, San Luis Obispo and Ventura, and the Cities of Los Angeles, Long Beach, Pasadena, San Bernardino and Santa Barbara.

The findings of the national evaluation committee headed by Dr. Thomas Francis, Jr., were released on Tuesday, April 12th. The vaccine was found to be safe and between 80 and 90 percent effective in preventing paralytic poliomyelitis. The product was licensed by the National Institutes of Health of the U. S. Public Health Service the afternoon of April 12th.

The National Foundation advised on April 14th, that the schedule for the initial injections has been revised from three (1 cc doses) to two (1 cc doses), given from two to four weeks apart. The third injection is recommended following an interval of at least seven months. This change is based on findings in experiments conducted during 1954 by Dr. Jonas Salk and his group at the Virus Research Laboratory, University of Pittsburgh School of Medicine. The California plan has been changed to conform with this recommendation.

The National Foundation stated that it does not plan to provide the third, or booster shot, seven months hence.

The California plan for distribution and use of the vaccine was de-

veloped over a period of several weeks in anticipation of the national report of the vaccine's effectiveness. The State Department of Public Health held regional meetings in March with local health officers in Los Angeles, Sacramento, Berkeley, Fresno, and Riverside to consider all aspects of the inoculation program. The department developed a plan which called for distribution to local health departments from five major California depots which were established to receive the vaccine from the manufacturers.

Development of an effective polio vaccine by Dr. Salk and his group can be considered as one of the outstanding public health achievements of the century. Because of its crippling effects, poliomyelitis has been a significant public health problem for many years. Last year in California there were 4,496 reported cases of this disease, of which approximately 54 percent had some muscular weakness or paralysis.

Attorney General's Opinion Bears on Private-pay Clinics; License Renewal Not Possible After Change of Ownership

When ownership of a private-pay clinic changes, the State Department of Public Health, which has licensing responsibility under the Clinic Licensing Act, cannot renew that clinic's license. This is the ruling the Attorney General has stated in Opinion 55-27, and dated March 16th. Because of its interest to physicians licensed to operate private-pay clinics, copies of the opinion were distributed by the department to all licensees.

The principal issue relating to private-pay clinics presented in Opinion 55-27 is that the department cannot renew clinic licenses subsequent to change of ownership because Clinic Act amendments which became effective January 1, 1954 limit renewal of private-pay licenses to licensees on record December 31, 1953. The Attorney General's Opinion states that change of ownership occurs by the withdrawal or addition of a partner to a partnership group. Opinion 55-27 has created such interest that it is anticipated some effort may be made to amend the Clinic Licensing Act as it relates to the restrictions under which private-pay clinic licenses may be renewed.

Trinity and Sierra Counties Seek Contract With Department

Trinity County, with a population of 6,300, and Sierra County, population 2,900, have requested assistance from the State Department of Public Health for establishment of organized public health services beginning July 1, 1955. With the addition of these two rural counties, only 10 of California's 58 counties will remain without organized public health services. These are rural counties with a total population of 163,900. Population-wise, this will mean that 98.7 percent of the State's 12,450,000 people live in areas having organized public health services. (Population figures are July 1, 1954, estimates.)

Trinity and Sierra Counties have indicated a desire to enter into a contractual arrangement with the State Department of Public Health for the provision of public health services in conformance with Section 1157 of the Health and Safety Code. Necessary budget arrangements are being made to financially assist such programs and negotiations are under way with the respective boards of supervisors to arrange for services.

Two rural California counties—Mono in 1954 and Alpine in January, 1955—contracted with the department for services since enactment of enabling legislation by the 1953 Legislature. This legislation is considered an extremely significant step forward in making public health services available to rural California counties where resident populations and tax bases are low, but where popular scenic and recreation areas attract large numbers of visitors for both summer and winter sports.

Health Education Training Centers Selected for Nine U. C. Graduate Students

Field training centers in local health departments for graduate students in health education at the University of California School of Public Health have been selected for the summer through cooperative planning by the department's Bureau of Health Education, the School of Public Health and local health departments. This year field training centers for nine graduate students are needed for the three-month training period. In addition, three foreign students will observe in local health departments for varying periods of time, and one foreign student completing his academic year at the Yale School of Public Health will have training in the Bureau of Health Education for five weeks.

In the preliminary planning for the selection of training centers, field consultants of the bureau appraised selected local health departments to determine their interest in serving as field training centers and their suitability in relation to student needs, type and scope of health education activities and quality of professional supervision.

Local health departments recommended by the Bureau of Health Education and selected as health education field training centers by the University of California School of Public Health include:

| | |
|---------------------------------------|------------|
| Contra Costa County Health Department | 2 students |
| Kern County Health Department | 1 student |
| Long Beach City Health Department | 2 students |
| San Jose City Health Department | 2 students |
| Santa Clara County Health Department | 2 students |

In addition, foreign students will observe in the Sacramento Health

Department, Los Angeles District Health Departments and the Alameda County Health Department.

Public Health Positions

San Benito County

Bacteriologist. Applicants must possess a bacteriologist certificate and a clinical license. For further information write Roswell L. Hull, M.D., Health Officer, San Benito County Health Department, Health Center Building, Hollister.

GOODWIN J. KNIGHT, Governor

MALCOLM H. MERRILL, M.D., M.P.H.
State Director of Public Health

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